



PATENT APPLICATION  
DOCKET NO.: 47176-00434

**SUPPLEMENTAL REISSUE APPLICATION DECLARATION  
AND POWER OF ATTORNEY BY INVENTOR**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe that I am the original, first and sole inventor of the subject matter that is described and claimed in Letters Patent No. 5,952,983, granted on September 14, 1999, and in the foregoing specification, and for which invention I solicit a reissue patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information that is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent, in accordance with 37 CFR § 1.175(a)(7). In compliance with this duty, an Information Disclosure Statement is submitted herewith in accordance with 37 CFR § 1.98.

I hereby claim foreign priority benefits under 35 USC § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

PRIOR FOREIGN PATENTS

<u>Number</u>	<u>Country</u>	<u>Month/Day/ Year Filed</u>	<u>Date first laid-open or Published</u>	<u>Date patented or Granted</u>	<u>Priority Claimed</u>
					<u>Yes</u> <u>No</u>

NONE

I hereby claim the benefit under 35 USC § 119(e) of any United States provisional application(s) listed below.

PRIOR U.S. OR PCT APPLICATIONS

NONE

(Application Serial No.)

(Filing Date)

(Status)

I verily believe the original patent to be partly inoperative because of error without any deceptive intent on the part of the Applicant. (37 CFR § 1.175(a)(6)).

The statement below specifies the errors relied upon, and how they arose (37 CFR § 1.175(a)(5)).

X why the original patent is believed to be wholly or partly inoperative or invalid (37 CFR § 1.175(a)(1))

\_\_\_\_\_ particularly, the defects upon which the claim that such patent is inoperative or invalid “by reason of a defective specification or drawing” is based (37 CFR § 1.175(a)(2))

X distinctly, the excess or insufficiency in the claims that make the patent inoperative or invalid “by reason of the patentee claiming more or less than he had a right to claim in the patent” (37 CFR § 1.175(a)(3))

\_\_\_\_\_ corroborating affidavits or declarations of others accompany this Declaration (37 CFR § 1.175(b))

1. The claims of U.S. Patent No. 5,952,983 (hereinafter “‘983 patent”) are defective in that they claim less than the Patentee was entitled to claim.

2. Of the five independent claims in the ‘983 patent, three claims (claims 1, 10, and 19) (“the apparatus claims”) are directed to an antenna for simultaneously receiving separate electromagnetic signals. The remaining independent claims (claims 16 and 27) (“the method claims”) are directed to a method for providing high isolation for an array of radiating elements.

a) Each of the apparatus claims recites a combination of elements which, among other things, includes:

a plurality of dipole radiating elements, said radiating elements comprised of first and second co-located, orthogonal dipoles, said dipoles aligned at first and second predetermined angles with respect to said vertical axis, said radiating elements and ground plane producing first electromagnetic fields in response to said electromagnetic signals;

a plurality of non-conductive supports, said supports connected to said ground plane and perpendicular to said vertical axis and placed between selected of said plurality of dipole radiating elements;

and

a plurality of independent metallic parasitic elements unconnected to said dipoles and placed in a selected of said plurality of supports, . . .

b) Each of the method claims recites:

providing a plurality of dipole radiating elements, said radiating elements comprised of first and second co-located, orthogonal

dipoles, said dipoles aligned at a predetermined angle with respect to said vertical axis, said radiating elements having a top surface,

providing a plurality of non-conductive supports, and placing said supports perpendicular to said vertical axis in between selected of said plurality of dipole radiating elements;

and

for providing a plurality of independent metallic parasitic elements unconnected to said dipoles and placed in a selected of said plurality of supports.

- c) The specification disclosed a new antenna design in which one or more metallic parasitic elements were utilized to cancel selected portions of the electromagnetic fields of the radiating elements, thereby improving isolation. The problem of interaction of the electromagnetic fields and mutual coupling, with the amount of coupling referred to as "isolation," is discussed at column 1, lines 47-57 of the patent. Also at column 2, lines 14-17, the patent states:

It is another object of the invention to provide an antenna array which improves isolation between the sum of one set of like-polarized signals and the sum of the orthogonal set of polarized signals.

Thus, the patent is considered defective in failing to claim an antenna array having parasitic elements for canceling portions of the electromagnetic fields and thereby improving isolation between orthogonal sets of polarized signals, without the additional recitations mentioned above. New claims 30 and 34 are presented in this reissue application directed to an antenna (or to a method of providing improved isolation for an antenna) having (see claim 30) one or more parasitic elements, (see claim 30) without the additional recitations mentioned above.

3. In the independent claims of the patent, as noted above, the radiating elements are characterized as "dipole" elements and as comprised of "first and second co-located, orthogonal dipoles, said dipoles aligned at first and second predetermined angles with respect to said vertical axis." These limitations are unnecessary to patentability.

Furthermore, the non-conductive supports are further characterized in the patent claims as being "connected to said ground plane and perpendicular to said vertical axis and placed between selected of said plurality of dipole radiating elements." This limitation is also unnecessary to patentability of the combination of an antenna including the parasitic elements.

Accordingly, the new apparatus claims 30-33 as presented herewith are directed to the combination of elements including the ground plane, radiating elements, and parasitic elements. Similarly, the newly presented method claims 34-37 are directed to a method wherein there is provided a ground plane, a plurality of radiating elements, and a plurality of independent parasitic elements.

4. An Information Disclosure Statement is being submitted with this reissue application. The new claims are believed to be patentable over the references cited therein.
5. The patent issued September 14, 1999. On or about August 23, 2000, Martin Zimmerman of Andrew Corporation, the assignee of this patent, reviewed the patent and contacted outside patent counsel, regarding the scope of the claims of the patent. Upon review, the outside patent counsel reached a conclusion, and I concur on this conclusion, that the patent claims granted are of narrower scope than those which could have been allowed. In particular, I believe that claims 30-37 presented herewith are patentable over the prior art known to us. Thus this reissue application is being filed containing such claims within the statutory period.

A Certificate under 37 CFR § 3.73(b), establishing the right of the assignee to take action in this reissue, is submitted herewith.

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I hereby appoint:

**ALL PRACTITIONERS AT CUSTOMER NUMBER 30223,**

all of the firm of **JENKENS & GILCHRIST, a Professional Corporation**, 225 West Washington Street, Suite 2600, Chicago, IL 60606-3418, as my attorneys and/or agents, with full power of substitution and revocation, to prosecute this application, provisionals thereof, continuations, continuations-in-part, divisionals, appeals, reissues, substitutions, and extensions thereof and to transact all business in the United States Patent and Trademark Office connected therewith, to appoint any individuals under an associate power of attorney and to file and prosecute any international patent application filed thereon before any international authorities, and I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization who/which first sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct them in writing to the contrary.

I hereby direct that all correspondence and telephone calls be addressed as follows.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAMED INVENTOR(S)**

1 Russell W. Dearnley  31 Oct., 2006.  
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3 George Xu  9 Nov. 2006  
**Full Name** **Inventor's Signature** **Date**

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On behalf of the Assignee, I hereby assent to the statements and changes proposed above by the inventor,

Full name of Assignee: Andrew Corporation  
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Person signing on behalf of Assignee: Justin C. Choi

Title: General Counsel

Signature 

Date: 11/2/06